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STRAWBERRY PLANTS & THAT GROW

1890

1917



C. E. WHITTEN'S NURSERIES
BRIDGMAN :: v :: MICHIGAN



“COLLINS”

A New Strawberry Originated at Bridgman

This new variety was originated here, and first offered to the public by me in the spring of 1915. As we have sold only in limited quantities, there are very few plants for sale of the genuine stock, and my advice would be to buy of the introducer.

I will repeat part of our original description:

“In offering this new Strawberry at this time I feel that I have something that will be an acquisition to our list of market sorts, and is also of such superior quality that the amateur will be delighted with it. Now let me say something of its origin: back in 1909 my next door neighbor, a Mr. C. H. Collins, (and old soldier of the '60's by the way) planted seed from a fine appearing berry picked from a Bederwood plant, saving three plants from these seedlings. Our berry was one of these and I saw it fruiting in 1911, and have had it under observation each year since. While its direct parentage (Bederwood) was plebian it must have had blue blood from some other source, for the plant growth, while showing unmistakable features of Bederwood type, still is of much stronger growth, making a good row, but it is not the excessive runner that Bederwood is; the foliage stands up very strong and rank, of rich dark green color, and is free from rust or disease.

“The fruit stems are strong, holding the berries well up from the soil, also the berries are of much better color than Bederwood, being a deep red, and of good rich flavor, ripening evenly without green tips.

“The ‘Collins’ is strongly staminate, making it a good pollenizer for pistillate sorts. While we shall call it a mid-season variety, it covers so long a period of ripening that it really begins with the second earlies and continues well along with the latest sorts, bringing practically every berry to perfection.”

We have fruited good sized blocks of this variety the past two seasons and it really has been our best cropper, altho we have not given it “ideal” culture, as in growing for plants we have let the rows mat too heavily. For best results on strong soil the runners must be restricted. When properly grown the berries are of good size and color, with absolutely no “nubbins” or “buttons.”

Altho a very poor year for plant growth, we have a good stock of “Collins” and shall make the price so low that all may afford to test them. 75c per 100; \$5.00 per 1,000.



GREETING

In again mailing our Annual Booklet "Strawberry Plants that Grow," we wish to acknowledge our appreciation of the continued patronage of our old friends, many of whom have placed orders with us each year for the past 12 or 15 years. This we consider our best testimonial, as it proves we satisfy the great majority of our customers.

We realize that it is impossible to please all, and we do not claim infallibility, as we sometimes make mistakes; however, we are always ready to correct these if reported at once.

We are situated in southwestern Michigan, near the lake in the heart of the "Great Fruit Belt of Michigan."

For over **thirty years** we have been growing Strawberries in this same location and feel that this experience should in a measure qualify us as an authority on Strawberry culture, though we do not claim to "know it all."

We have always tried to do a **Square and Honest business** and hope to continue the standard.

We make no claims for the **great superiority** of our plants, but we do claim that we grow **just as good plants** as anyone else can. Neither do we claim to be the "largest grower," but feel that this is to the advantage of our customers, as we are able to oversee **personally** both the **culture and shipping** of all stock which we send out, which is impossible where the "largest business" is done and much has to be left for others to look after.

Owing to excessive moisture until about the first of July, followed by very hot and dry weather until September, the past season was very disastrous to all cultivated crops. By giving our Strawberry fields constant cultivation we managed to keep them growing until better conditions prevailed, and as the season was quite late, we have a fair stand of well rooted plants, altho as a whole this section has hardly half a crop. Due to this shortage and to the advance in the price of all commodities, including labor, we have had to advance our prices for plants materially.

We take great pains to keep our plants **true to name**, and warrant them as such, and if any prove untrue, will either refund the money paid or replace with those which are true.

We cannot warrant plants to grow, for there are too many chances over which we have no control; we do warrant our plants to be packed to carry safely and to be in good growing condition when delivered to the carriers, after which our responsibility ceases.

Our strawberry plants are all fresh dug at time of shipping, as we do not try to winter any in cellar.

I wish to emphasize this statement, as in the past some have claimed that my plants have been held over winter in cellar. Let me say here that I never did this, nor have I ever seen others that practiced such methods.

In propagating strawberry plants for sale we always set from one-year-old beds which have not fruited. We also set different varieties in blocks of several rows each, thereby obviating the danger of mixture, liable where different sorts are set in alternate rows. In digging, we usually take up the entire row, discarding the original plants and such of the tip plants as are not well rooted, therefore, we have no exhausted stock to send out.

In digging strawberry plants our help work in the field when the weather is fit, lifting the plants with "potato hooks" when taking the plants from the soil, stripping off the surplus leaves and runners and tying in neat bunches of twenty-five (we always aim to put in twenty-six). After tying, the bunch is carefully heeled in until the required number of that variety is dug, thus the roots are not exposed to the air for any length of time.

Of course, sometimes our packages get broken in transit, through careless handling, and if found in such condition upon delivery, our patrons should refuse to accept and pay charges upon the same, if once accepted it is hard to collect damages. Also if plants have been delayed and have been an **unreasonable** length of time on the road, do not accept them, as they are quite liable to be injured, especially strawberry plants.

It will be a great help to me if my friends will speak a good word for my plants, if they have the opportunity, and it will be thoroughly appreciated.

If more than one catalog is received, please hand to some one whom you think will be interested in small fruits.

Please read very carefully our "Instruction to Purchasers" on page 23 before making out your order, also be sure and use the Order Sheet enclosed, writing postoffice, county and state very plainly.

Please sign your name plainly; we can guess at anything else easier than proper names.

How To Set and Grow Strawberries



THE SOIL, and location best adapted to strawberry culture will vary somewhat in different sections. In a general way we have said that any soil that would grow good crops of corn or potatoes would grow good strawberries, and while this seems to be a pretty safe rule, it is also true that in order to grow them to the best advantage it is necessary to have the soil especially adapted. One of the first requisites of the ripening fruit is moisture, and care should be taken that this is provided. Hence a very dry or loose, sandy soil would not be a safe location, although in moist seasons a fair crop might be harvested. Neither is a stiff clay adapted to strawberry growth, as very early in season it cannot be worked without becoming cloddy, and late is apt to bake, and the plants will suffer more than on sandy soil. It would seem that a sandy loam or loam with slight mixture of clay should if properly handled give the best results.

Drainage—Having chosen a soil retentive of moisture, it next becomes necessary to prepare for proper drainage in case of excessive rainfall, unless the natural lay if the land is such that no water will stand upon the surface. Tile drains are the only practical ones to use. Open ditches will, perhaps, answer this purpose, but are unsatisfactory in many ways.

Frost—In planning your strawberry field care should be taken to avoid frosty locations, such as very low land near marshes or lakes, also valley where there is no chance for circulation of air, as these localities are very liable to heavy frosts, when higher land or that more open to circulation would show little, if any. A hard frost at blossoming time often ruins the entire crop.

Manuring—Where the soil is, at all deficient in fertility, I would advise using well-rotted stable manure. If this can be applied to the soil the year previous and some cultivated or hoed crop grown, then the following season the land must be in the best possible condition for setting strawberries.

Some writers advocate the plowing under of a clover sod in preparation for this crop, but I am always doubtful of this method on account of the white grub, the larvae of the May beetle, which is quite apt to infest such soil. Perhaps if only recent seedings were so treated, this pest would not trouble, but I would warn all against plowing up an old sod to set strawberries, as the grubs would be almost sure to destroy the greater portion of the plants set. Never plow under green or very coarse manure just before setting strawberry plants, as it would cause the soil to dry out very quickly and will also burn the roots, killing the plants wherever it comes in contact with them. This is important and should be avoided if possible. Any good commercial fertilizer may be used. This should be sown broadcast on land after plowing, and well harrowed in.

Fitting the Soil—Begin by plowing as late in the fall as possible before the ground freezes. This late plowing is beneficial in that the soil lays up loose and open, that frost may act upon it more readily, also leaving it in condition to absorb more moisture in the spring, which may be drawn upon later in the season in case of drouth. It also tends to kill a great many insects which live over winter in the soil, some of which are quite troublesome and injurious to strawberry growth.

Plow as deep as practicable, eight inches at least, unless this brings the subsoil to the surface, which should not be done under any circumstances. As soon in the spring as the season has fairly opened, just as early as the soil will work up mellow, the land should be thoroughly harrowed, followed immediately with a heavy roller or plank drag. This firming of the soil is important, as it is almost impossible to set plant properly if the soil is not reasonably level and firm at the surface. If the surface soil should become too dry and loose it may be necessary to wait for a shower before setting the plants.

Marking Out—This may be done in any manner that will give a very shallow, straight mark to set by. A light sled marker that will make three or four marks at once is very handy, and could be made by almost any one. In garden culture a line may be used.

Hill Culture, which consists of growing the single plants, cutting off all runners as fast as made, which causes the plants to "stool out" or grow additional "crowns," which will each produce fruit stems, the rows should be from two and one-half to three feet, apart and sixteen to eighteen inches in the row. If to be cultivated both ways, or in checks, two to two and one-half feet would be right. I would recommend this method to all those who wish to grow fancy berries and are willing to give the extra culture needed. This system requires a rich or fertile soil.

The Hedge Row is quite similar to hill culture. The rows should be from two and one-half to three feet, and twenty to thirty inches in the row; the freer runners the greater distance. The first runners are turned into the row and held in place with soil until they have

struck root, generally about every six or eight inches in nearly a straight row, later all extra runners are kept cut off. This is easily done with a good sharp hoe.

The Half Matted Row should be set about three and one-half feet apart and eighteen to twenty-four inches in the row. The runners are all kept off until about the middle of summer, then allowed to root until row is about one foot wide, after this all runners should be cut off. This gives a fine show for fruit.

The Matted Row is the system adopted by the great majority of fruit growers, although without doubt other methods would prove more profitable. The rows are set four to four and one-half feet apart, and plants from twenty to thirty inches in the row. The runners are all allowed to root, running the cultivator always in the same direction and narrowing it up as required. At times, if the season happens to be favorable to plant growth, and the soil is rich, almost the entire surface will be covered with plants. This method might be allowed on poor soil where fewer plants would be grown, or with varieties that make few plants.

Setting Out—We use a common garden spade for opening the holes, which is done just ahead of the setting, not leaving them to dry out. In doing this the operator proceeds along the row, thrusting the spade in the center of the mark already laid out, spacing equal distances according to methods chosen, quite close if to be grown in hills, and further if for matted row.

This should be nearly the depth of the spade, and if the soil is properly prepared this will not require much effort, but of the soil should be very solid, it will require some pressure of the foot.

The spade should be given a slight motion away from, then back toward the operator; when withdrawn, if the conditions are right, you will have a V-shaped opening which will readily receive the roots of the plants. Care should be taken not to weave the spade back and forth too much, as this tends to open too wide a space at the bottom of the hole, making it hard to close properly, and leaving a chance for air space, causing plants to dry out and die.

The greatest pains should be taken in getting the plants into the soil, and here is where you should place your most careful workmen; or better still, do this part yourself, if possible. Have the plants set in a shallow basket or other receptacle, with the roots moistened—if the roots are very long they should be cut back to about three inches. The plant should be held by the upper part of the crown, and placed in the spade opening at about the same depth it grew, which would bring the crown even with the surface; now let the operator press the soil firmly against the plant with a good strong pressure of the foot, being careful to see that the opening is entirely closed that air may not enter and dry out the roots.

Cultivation—As soon after setting as practicable, the surface soil should be stirred very shallow, being careful not to disturb the roots of the plants, also not to cover up the crown or heart of the plant; the latter will cause the plant to die, especially in damp weather, by rotting or smothering the crown. This early cultivation is essential for several reasons: First, to be sure that all the openings near the plant are filled, also to preserve moisture if the weather is dry, by arresting evaporation through capillary attraction. This cultivation should be kept up through the season, never allowing the surface to crust.

However, it is necessary to do some hand work with the hoe in order to loosen all the surface and keep down weeds. The latter is very important.

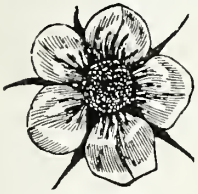
The blossoms should be pinched out of all spring-set plants, as it is not advisable to let them ripen fruit the first season, as it weakens the growth of the plants and is liable to kill them outright.

All runners should be cut off until the first of July, when if matted row is wanted, the runners may be allowed to root until the desired row is obtained, after which all runners should be kept trimmed off.

Mulching or Winter Covering—As soon as growth ceases in the fall, and before ground freezes hard, the surface of the field should be well covered with some sort of mulching, either long straw, wild hay, corn stalks or other litter, if free from foul weed seed, will answer the purpose. I would advise spreading hay or straw when slightly damp, if possible, and place a little soil upon the top at short intervals, which will help to keep it in place in case of high wind.

Some advise using coarse stable manure as a covering, and if free from grass seed, this might be advisable, as it would both fertilize and protect the vines from frost. However, I generally "fright shy" of stable manure on plants that I wish to fruit the second season or for longer periods, as I have sometimes seen a good stand of clover and timothy on what was supposed to have been a strawberry bed. As soon as growth commences in the spring this covering should be taken nearly or entirely off the plants, but may be left between the rows as a mulch to preserve moisture, also to keep the fruit clean at picking time.

STRAWBERRIES



Perfect
Blossom

All strawberry blossoms are either staminate—also called perfect—or pistillate, generally called imperfect.

The Imperfect varieties, which are all marked (Imp.) in catalog, should have a perfect variety, marked (Per.) set every third or fourth row to properly pollinize the blossoms of the imperfect sorts.

There seems to be a mistaken idea with some that this mixing of varieties is necessary with the perfect as well as the imperfect sorts; but this is not so. The perfect sorts are self-pollinating, and will bear as well if set by themselves.



Imperfect
Blossom

NEWER VARIETIES

Collins

I am going to head my list with this new sort which I introduced two years ago. From our own experience in fruiting and from reports of others, I feel satisfied that this is to be a standard market variety when better known, and have no hesitancy in offering it to the public as a superior sort for either home use or market.

Our colored plate in front of this catalogue does not do full justice to its beauty, altho reproduced from an original photograph. The first berries are apt to be slightly irregular in shape, but later are very uniform, ripening evenly, without green tips, and bringing every berry to perfection.

It is a very strong grower and on rich, moist soil, is apt to set too many plants, hence it is necessary to restrict this extra growth by removing surplus runners.

The "Collins" seems well adapted to the "hill" system of culture and by this method very remarkable results may be obtained, as quality and size of berry is very much improved and on a strong soil this is the "ideal" method.

Mr. Collins, the Originator of this variety, sold his farm here in fall of 1911 and removed to Bement, Ill. However, he reserved the "Collins" plants, and in the spring of 1912 I took up and shipped to him all except a dozen or so, which I kept for testing, also keeping the original "mother" plants till after fruiting. It was from these "original" plants that we picked the cluster of berries for our photograph.

I received a letter from Mr. Collins during the picking season last June from which I will quote in part: "We are right in the midst of our berry picking, the biggest crop that I have ever seen, and the 'Collins' is ahead of them all here. I am getting \$2.00 per 16-quart crate, while others are selling at \$1.50 to \$2.00 per 24-quart crate. We also get 15c per box for the 'Collins' while other sorts are selling at 10c to 12½c.

"The 'Collins' are running the largest that I have ever seen them, and they sell. I have sold 14 crates in one day (home market.)"

The only real fault that has been found with this sort, so far as I have been able to learn, is the tendency to set too many plants when not restricted, causing the berries to run smaller.

Try it, giving proper culture, and my word for it, you will be pleased. This year I am going to make the price so low that all may afford to give it a trial.

75c per 100; \$5.00 per 1,000.

Chesapeake

It is too bad that so good a berry as the Chesapeake is not more largely grown, as it is certainly one of the very best late sorts that I am acquainted with.

While not as heavy a cropper as some, and rather poor plant maker, still it makes such strong and thrifty plants that it is able to bring all its fruit to perfection.

Then too the eating quality of the Chesapeake is superior to most of the very late sorts, ranking with Wm. Belt or Marshall.

As this sort is such a poor runner we seldom have plants enough to fill our orders, and feel tempted each year to drop it from our list.

We will not have very many to offer this season, but while they last will sell at 75c per hundred; \$5.00 per thousand.



Chesapeake.

The Famous Gibson

(Per.)—This is not the old variety of that name which originated in Eastern New York several years ago, but it is a local berry of great promise and more nearly resembles the Pocomoke than any of the older sorts which I am acquainted with.

It commences to ripen with the second earlies and continues for a long season, making a heavy yield of fruit.

The fruit stems are large and strong, and the dark green foliage is an ample protection for the blossoms and fruit; having a strong staminate bloom, it makes a very good pollenizer for pistillate varieties.

The berry is large and regular in shape, holding its size well to the end of the season; its color is a deep, rich red all through from surface to center; its flavor is fine, being neither too sweet nor too sour, but just right for table or canning.

In manner of plant growth it very closely resembles **Pocomoke**, making a heavy row of very strong and healthy plants, its foliage being of a very dark and glossy green, not a speck of rust to be seen on our rows this season.

It is very hardy in bud and bloom, withstanding spring frosts that very nearly wiped out such varieties as Bederwood and Warfield on adjoining rows.

I cannot give the parentage of the **Gibson**, neither can I give its exact origin, but it seems to have originated in our county (Berrien), having been grown by a colony of German farmers who kept it to themselves for several seasons, making big money out of it. Finally it became known and other growers have been able to fruit it until at the present time it has become very popular with our market growers.

The above is taken from our earliest description and I still think it is one of the best market sorts we list.

It seems identical with **Pocomoke** and hereafter I shall list only the one sort. This should not prejudice anyone against this variety, as under either name you will find a first-class berry.

In the Bridgman Fruit Growers Association there are more acres of **Gibson** grown, by far, than of any other variety; this should prove its desirability as a market berry.

It is almost a sure cropper, practically never failing to bear a profitable crop of very firm berries of good quality and appearance.

Plant **Gibson** for mid-season market and you cannot fail of being pleased. Owing to the poor growing season and consequent shortage of plants we have had to advance the price of this variety along with many others. 60 cents per 100; \$3.50 per 1,000.

Big Joe Johnson

(Per.)—A new variety from Maryland, which gives promise of becoming one of the best late market sorts. Below are descriptions taken from some of the Maryland growers' catalogs:

"This new berry originated in the southern part of Wicomico county, Maryland, about four years ago, and has been well tested. It ripens about the same time as the Chesapeake. The Joe Johnson is very productive of very large berries. It is a beautiful red berry with a bright green calyx, which adds greatly to its beauty and market value. Flavor is of the best; a perfect table and canning berry, and one of the best shipping varieties. Has a perfect flowered blossom and is a strong pollenizer. You will make no mistake in planting the Joe Johnson."

"This is a new variety that is being grown to considerable extent locally in this county, and has sprung into prominence very quickly. It has been fruited in this section two seasons, and it has shown such vigorous growth and such a wonderful productiveness of large, handsome berries that bring top prices in market that everybody who has seen it is wanting plants."

It is too bad that this variety has been listed by so many different names. It is claimed by writers of authority that this is the same berry introduced from Maryland a number of years ago under the title of "Joe;" while more recently it has been offered by other Maryland growers as "Joe Johnson" and "Big Joe."

Not being able to settle the controversy or decide which name is correct, I will combine the titles, calling it "Big Joe Johnson."

Whichever name we use, it seems to have merit as a late berry, being a very strong grower, making a good row of plants which produce a heavy crop of large and firm, bright red berries, making a good late market sort. We have only a limited stock of this variety.

60 cents per 100; \$4.00 per 1,000.



Gibson.

Rewastico

(Per.)—This is another seedling from Maryland, and the introducer claims a rival of Chesapeake, which he also introduced.

"The Rewastico is a highly colored, large, cardinal-red berry, and the color penetrates through and through; it is very productive, and in size is uniformly large; in shape it is as perfect and uniform as if turned out of a mould. In plant-growth it is one of the healthiest on the farm, making plenty of large, strong plants, with an abundance of vigorous, luxuriant, dark green foliage; in quality it is rich, with an aromatic strawberry flavor, though somewhat tart; but is firm enough to be very popular as a market berry. We consider ourselves extremely fortunate in being able to procure the entire stock, and are glad to be able to offer this new berry this season at a price within the reach of everybody, as it is so good and is going to be so valuable as a market berry that we want all of our customers to have it. We sincerely believe that those who fail to procure plants at the very reasonable price at which we are offering them this spring will miss a great chance to get started with one of the best market strawberries ever offered to the public. We consider it the only real competitor that the Chesapeake has ever had, and in some respects it even surpasses that exceedingly popular variety. Anticipating a great demand, we shall plant heavily of it ourselves; and should we misjudge it in the demand for plants, we are sure we shall not be disappointed, weather permitting, in a large crop of fancy berries. We can give no stronger recommendation than this, and we know our friends will be as highly pleased with it as we are."

The above is the introducers' description. We fruited a small block of Rewastico the past season, and I shall have to confess that with us it hardly came up to Mr. Allen's claims. In vine growth it is near perfection, and it sets a lot of fruit which ripens late, but we found the berries ran small after the first pickings and were too acid to be called of good quality. However, it is very firm and will stand long shipment. Perhaps another season or on different soil it will do better. We have quite a lot of plants which we shall offer low.

60 cents per 100; \$3.50 per 1,000.

Billy Sunday

(Per.)—This new variety was originated on the farm of Mr. Yost, in the state of Ohio, from whom I have received plants for our own setting. Not having seen this in bearing I can only give the originator's description, which follows:

"I have been growing small fruits for fifteen years and have fruited nearly all standard varieties of strawberries, but haven't found any that will take the place of this new variety, that originated on my fruit farm seven years ago. I named it the "Billy Sunday."

"Many have made inquiries and came to my farm at fruiting time to see these large, sweet berries. The plants are very hearty—a great crown maker—tall, dark green foliage, long, heavy fruit stalks, making the berries easily gathered. The berries are very large, glossy red, slightly wedge shape, uniform in shape and size, a delicious sweet flavor and it ought to be a good shipper. They fruit a long season, throw out late bloom that develops larger berries, making a frost-resister. They begin to ripen with Haverland and end with Sample. A perfect flowering variety and a good plant maker."

We fruited this sort the past season in a very limited way, and were not very favorably impressed with it. Still I do not want to condemn it without further testing. It makes a very strong and thrifty plant growth, but did not set as much fruit as we expected. We have only a limited amount of this variety.

60 cents per 100; \$4.00 per 1,000.

The Original Helen Davis

(Per.)—"One of the largest strawberries ever produced. Wonderful yielder and every berry smooth and well shaped. A grand strawberry. Plants are strong and healthy, a good plant maker; produce strong fruit stems and many of them. The fruit is a sight to see. We seldom find a strawberry, especially an early berry having so many superior points as Helen Davis.

"The plant is a strong, vigorous grower, with tall, healthy foliage, and has never shown any sign of disease; the runner wires are large and strong and just the right length to layer properly without crowding. The fruit stalks are large, some growing as large as a lead pencil in diameter. The fruit is held up from the ground by the strong stems and is easily gathered. The fruit grows in clusters, some stems having as many as thirty berries on them, with as many as ten fruit stalks to the plant. I have had single plants that a bushel basket would not cover.

"One great feature of this plant is that there are never any blank plants, every plant, no matter how small, has a fruit stalk. I have never seen a plant equal it in this respect.

"The fruit is large and attractive and holds up well in size throughout the season. It commences to ripen with Dunlap and ends with Sample. Have picked berries from it as late as the 4th of July. It is a light crimson color which extends clear through, and has a flavor which cannot be excelled. The berry is sweet, and is a fine berry for canning. It is a heavy cropper, and will yield twice as many perfect berries as Glen Mary. It is a perfect flowering variety, and is a strong pollinizer for imperfect varieties.

"One strong point in favor of this variety is that every berry is perfect and smooth, no knotty berries. It will go through hard frosts and bear a good crop of fruit."

It is a thrifty grower and very prolific bearer, and in favorable weather it makes a good market sort.

60 cents per 100; \$3.50 per 1,000.

Charles I

(Per.)—This new early variety is a seedling found by one of our growers, Mr. Geo. Hann, several years ago, and later introduced by Mr. Baldwin, who gives it this description: "Charles I ripens nearly a week ahead of Michel's Early, and is very productive, yielding more quarts of large, fine looking berries than any other early sort. It is a strong fertilizer and a good grower. Berries are large, regular in form, and of good color and quality. This valuable early strawberry continues to produce large, fine looking berries till the last pickings."

We have never fruited Charles I, and have only a limited stock of plants to offer.

60 cents per 100; \$4.00 per 1,000.

EARLY VARIETIES

The Luther

(Per.)—Luther, or August Luther, as some prefer to call it, was originated by Mr. A. Luther, of Missouri, and grown by him for several years before it was offered for sale. I shall still place this variety at the head of the list of **extra earlies**, as I have found nothing yet that I consider better. It has a very pleasing appearance, being of a very bright red color and almost always of perfect

shape, a slender, rather sharp pointed berry. It ripens evenly, no "green tips," and will ripen its full crop in a very short space of time, this feature making it a good market sort. It is also a very thrifty grower, making a full row of medium sized plants.

This season we have a good stock of well-rooted plants, and I shall recommend it to all wanting a very early berry.

As I have said before I have found nothing better than **Luther** for first early market berry, and I do not hesitate to recommend it as such. Twenty-five, 20c; hundred, 60c; thousand, \$3.00.

Bederwood

(Per.)—This is generally conceded to be one of the very best early varieties for home use or market. It is a splendid grower, making a large number of strong runners. It has a perfect blossom, and is **immensely productive**. Fruit of good size, light red, medium firmness and good quality. One of the best to plant with early blooming pistillate varieties.

While this sort could hardly be classed as a **firm** or **hard** berry, it has a peculiarly dry or spongy nature which enables shipping it long distances without injury. It is an excellent plant-maker, setting freely and rooting deeply; thus being able to withstand drouth. I should like to emphasize what I have said in its favor and again recommend it as a paying market sort.

Twenty-five, 20c; hundred, 60c; thousand, \$2.50.

Haverland

(Imp.)—This is one of the best early market sorts, and seems to do well in all sections. It makes a thrifty plant growth. Berries are large and of a peculiar longish shape, though very regular and even, holding out well to the end of the season. The color is rather **light red**, which may be considered a fault by some, but they make such a handsome appearance in a box or basket that they nearly all sell at top prices in market. About the only weak point that I have discovered in the **Haverland** is that the fruit stems are tall and unable to stand up under the weight of fruit as it ripens, consequently they should be mulched with straw to keep them from the dirt. This peculiarity of growth makes fine picking, as the berries lay out in sight, requiring no movement of the vines to find them. Another good point in their favor is the ability to withstand frost at blooming time, often bearing a full crop of perfect fruit when other sorts are badly damaged. There is such a demand for plants of this variety that the supply nearly always falls.

There have been a great many spurious or mixed plants sent out from this section as **Haverland**; we warrant ours true to name. If you are unacquainted with this sort, try a few and see what a fine market berry they are. A little too soft for distant shipment, but they will stand picking before fully ripened and will color up in the crate after picking. If handled in this manner, **Haverland** will stand shipment as well as any of the larger varieties.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Warfield

(Imp.)—This variety is still very popular as a market sort, although the Senator Dunlap has practically usurped its position at the head of the list, which it held before the advent of that very popular sort. The two together make a good team, and are quite similar in appearance when in the crate. In plant growth this variety is quite similar to Senator Dunlap, except it does not root so deep on light sandy or gravelly soils, and is more liable to suffer from drouth. While the individual plants are quite small and usually have only one fruit stem, it is remarkable the number of quarts produced by a lightly matted row on good strong soil.

Warfield cannot be excelled as a canning berry; indeed, my wife says that it is not equaled by any of the sorts we list. It is quite tart, but of good rich flavor, not simply sour, and has a very deep red color, which it holds after canning.

Twenty-five, 20c; hundred, 60c; thousand, \$3.00.

Lovett

(Per.)—No person need hesitate to plant this variety for either home use or market, as it succeeds generally in any soil or locality. It is one of the tough, hardy varieties that will never disappoint the grower. It has a perfect blossom and bears heavily. The fruit is of medium to large size, conical, firm, and of good color and quality. One of the best to use as a pollenizer for pistillate sorts. Twenty-five, 20c; hundred, 60c; thousand, \$3.00.



Luther.

Senator Dunlap

(Per.) — In other years I have tried to describe this variety and have said that it might be called a perfect flowered Warfield. Although it is very distinct it is quite similar in form and color of berry, also in manner of plant growth.

If grown on very strong and moist soil in matted row it will be disappointing, as it will set too many small plants, and the berries will be small and of poor quality; however, if kept in a narrow row, the fruit is large and of high quality.

I have tried for several years to get a good half-tone of the Senator Dunlap, but have not been very well pleased with the result. Above is from a photo of a cluster of berries taken about the middle of the past season, too late to show the largest berries, and when fruit was overripe. This illustration is true to life as showing type of berry



Senator Dunlap.

and productiveness. The Introducer of this variety had this to say of it when first offering it:

"We have the greatest confidence in this variety and believe that it will in the near future take its place among the more prominent standard kinds. The plant is almost perfect in its way. We have several times called attention to its toughness and ability to endure hardships. It is small, slim, very deep-rooted, and as great a runner as the Warfield. With us it has always proven very productive. The fruit is generally large, never of the largest size, however; is conical in form, regular, never misshapen, bright or slightly dark red, very glossy, firm, a splendid keeper and shipper, most excellent in quality and one of the best canning berries we have ever known. Its season is second early and it bears a long time."

The elapse of time has fulfilled his prophecy for today there is no known variety that is so universally popular nor one that is so extensively grown as the Senator Dunlap.

Some one has said that this was the safest variety for the new beginner, as it would bear fruit in spite of neglect and ill treatment, and while this may be true in a degree, it is also true that it will well repay the most careful culture.

Another feature I wish to mention is its habit of deep-rooting. In this feature it has its superiority over the Warfield, which is a shallower rooted plant and is more easily injured by freezing or drouth, while the Senator Dunlap is able to withstand either in a great degree on account of its deep roots.

I have always recommended Senator Dunlap, for either market or home use, and I wish I were able to describe its merits more fully; however, no one can make a mistake in testing it, as it is one of the best, making an excellent pollenizer for second early sorts, or doing equally well planted alone.

On page 14 of this catalog we have a reproduction in color of this variety, which is nearer life size and gives a pretty fair representation of the Senator Dunlap when well grown.

Also in our description under this cut, among other things I have said that were I confined to one variety of Strawberry, Senator Dunlap would be my choice, and I wish to reaffirm or emphasize this statement here.

I do not mean to say that I think that the quality of the berry is the best of any sort, but all things considered, health and vigor of plant, its fruitfulness, good color and quality of berry, together with its long season of ripening—from early to late—make a combination hardly equaled by any other sort that we have tested.

This seems to be the universal opinion of all growers in the North Central States.

Twenty-five, 20c; hundred, 60c; thousand, \$3.00.

Mixed or Surplus Plants

It sometimes happens that we have a surplus dug of some varieties of Strawberry plants and rather than hold them over for another day to get stale we should prefer to ship them out at a lower price. Also we sometimes have a few plants that are mixed in the digging (we have none growing that we are aware of) and while these would usually do as well for home use they are not fit for filling orders calling for special varieties.

These cheap plants are first-class and generally of Standard sorts; our reason for offering so low is that after they are dug they soon deteriorate if held in the packing house.

If one is not particular about certain varieties, simply wanting good, standard sorts and will give your order for "Surplus" plants, we can furnish plants of our own choice for \$2.00 per thousand.

We shall always send enough of Staminate sorts to properly pollenize the imperfect varieties.

MIDSEASON TO LATE VARIETIES

Glen Mary

(Per.)—This variety was originated in Chester Co., Pa., and introduced in 1896 by W. F. Allen, of Maryland, whose description we give below:

"I introduced this variety twelve years ago at \$10.00 per 100. Throughout New England and the West it is the leading berry of the list today. We sell more plants of it, year in and year out, than any variety that we grow. I do not recommend it for this peninsula, or for the South, but for New England, West and Northwest, I doubt if there is any variety that will equal it in every respect. It is only semi-staminate, but as its blossoms carry enough pollen to fruit its own berries, it is listed as a staminate variety, but I would not recommend it to plant with pistillate varieties as a pollinizer. They are big, dark red berries, with prominent seeds of bright yellow; the meat

is rich and juicy and crimson in color. They are of such high flavor that when once eaten more are wanted. As a good, firm shipper, it is very popular for fancy local market; there are few, if any, better. For this reason they are popular with both the large and small growers. It has no particular choice of soils, and does not require petting. The roots are long and well developed, providing plenty of moisture during a drouth. The foliage is large, upright in growth, dark green in color, leaves nearly round, with dark, glossy surface, making a beautiful appearance in the field. The fruit stems, although large and strong, are weighted to the ground by the large clusters of berries; for this reason they should be well mulched to keep them clean. The berries are just the right size to make a fine appearance in the crate, and you do not have to be timid about asking a big price for them, as everyone will pay extra to get extra fine berries."

Twenty-five, 20c; hundred, 60c; thousand, \$4.00.

Bubach

(Imp.)—Fruit large and handsome, roundish, conical, bright scarlet, moderately firm, of fair quality. Plant a strong grower, with a large healthy foliage and very productive. Succeeds on light or heavy soil. Desirable for home use or near market. One of the best. Season early to medium. This is an old standby, and is deservedly popular. In plant growth it is vigorous, but does not throw out excess of runners, hence it is best grown in hedge or half-matted rows.

This variety is perhaps as well known and as widely disseminated as any grown, and while perhaps it is not as popular as it was several years ago, still we always run out of stock long before the close of the season. Although it is hardly firm enough for long distance shipping, it will hold up for ordinary marketing, and is one of the largest berries grown.

Twenty-five, 20c; hundred, 60c; thousand, \$4.50.

William Belt

(Per.)—"A native of Southern Ohio, and named for its originator, now deceased. For fourteen years this has been before the public, and almost from the start it took rank as the best of all in flavor. It is also superior in beauty, size and productiveness. The color is bright red. The first berry to ripen on each stem is cockscombed, but the others are conical. The plant is grand, and the foliage abundant and healthy. There was a time when it was subject to rust in some localities, but we have heard nothing of it lately."

With us this has proven a valuable variety, giving heavy crops of fine fruit.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Brandywine

(Per.)—This has proved so satisfactory with all who have grown it that it is consequently in large demand. It is comparatively new and of great value by reason of its productiveness, large size, beauty and good quality, which renders it especially desirable for the home garden. The berries are glossy crimson, very handsome, firm and solid, excellent in quality, with fine aromatic flavor. The berries color all over evenly and retain a good size to the last, ripening in succession, and every berry maturing fully. Plant is remarkably vigorous, hardy and exceedingly productive and its foliage is long, clean and healthy.

Twenty-five, 20c; hundred 60c; thousand, \$3.50.



A.B.M.

Wm. Belt.



The Fall-Bearing Progressive

Photographed from plant growing in the field Sept. 26, 1913; the berries showing about two-thirds natural size.

This is the one really "Fall-Bearing" variety, as this sort will bear a heavy crop during the Fall months on plants set the previous April.

Other varieties will bear a few berries the first Fall, but you must wait until the following year for a crop, and then if you let the plants bear the June crop, as they will unless disbudded, they are so exhausted that the Fall crop is much smaller than the **Progressive** gives the first season.

I claim that the **Progressive** grown for the one season's crop, that is, set a new bed each year, will pay better than to grow the other sorts that you have to wait a year for your returns.

I have made this claim for several years while others were trying to push other varieties, but the past season many of the plant growers have come to the same conclusion and will give **Progressive** first place in their 1917 catalogs.

Superb is really the only sort in this class that can be considered as competing with the **Progressive**, and although it is a larger berry, it will not stand shipment as will the latter. As a June variety it does excel, but why pay the price when we have so many better June sorts. I am not knocking the Superb, for we are growing plants of that variety to sell. I give it as my honest opinion of the comparative merits of the two varieties, considered as Fall croppers, from personal experience.

We have grown the two varieties side by side for past four years, and have picked crates from the **Progressive** where we did not pick quarts from the Superb, during the Fall. We find that it pays to have the soil well enriched where growing the Fall-bearers, and also that constant cultivation is essential. This may make sandy berries if it is rainy weather, but is necessary if you wish to grow a profitable crop, as you must have the new growth for your later berries.

The year 1916 will go down in history as one of the poorest seasons for growing crops experienced in many years. Continuous rains until July 1st, followed by excessive heat and drouth through July and August, very nearly ruined all cultivated crops, and Fall-bearing strawberries suffered very materially along with other things.

While there was an increased acreage set the past spring, I doubt if there is one-half the number of plants for sale as were offered last year; surely not in this section, and prices must of necessity be held firm.



PROGRESSIVE, Continued

We are giving a new illustration in colors of the **Progressive** which was taken from a field-grown plant, placed in a pot for convenience in photographing, and which shows the size and prolificness of this variety.

Some claim that the **Progressive** is a very small berry, but I do not find it so unless it is allowed to fruit too early in the season, when it is apt to set too much fruit, which exhausts the vitality of the plant and it fails to make the new growth needed for best results.

We advise picking off all blossom stems until July 15th, or later if the weather is very dry, encouraging all the new growth possible, then in the later season you will have berries ripening on the young plants which will be of good size.

Do not try to grow **Progressive** in "hills," you will be disappointed if you do, as the berries will run very small; this method may do with the **Superb**, but not with **Progressive**.

Another point that I would urge is to set the Fall-bearers just as early in the spring as possible to fit the soil properly, as the earlier plantings always give best results with us.



Photo showing one plant
of the Wonderful Fall Bear-
ing Progressive.

(The following was clipped from Farm Journal).

Last spring I bought about five dozen nice Progressive everbearing strawberry plants. I set them out late in April and began picking ripe berries early in June, only a few at first, but the quantity grew larger each time until we got four quarts at a picking. I have picked twenty quarts this month (October), and how we have enjoyed our strawberries through August and September!—W. STINMAN, Nebraska.

We are still (October) eating everbearing strawberries; had a big panful for supper tonight; more to be had for the picking. Our altitude is about 4,000 feet, and we have had repeated hard freezes the past ten days, but that does not seem to phase the strawberries in the least. The fruit has frozen too hard to bite, but thawed out as good as ever, while the plants are covered with blossoms. I can understand why you should have such spasms over your berries if they behave as mine are doing.—O. M. SALISBURY, Montana.

While I have suggested the advisability of resetting each year, only fruiting the Progressive the first fall, I do not mean to infer that this variety will not bear the second season; to the contrary, it will be one of the first to ripen, but will run small at the close of the June crop, usually resulting in exhausting its vitality to such an extent that the later crop is light and inferior, hence I much prefer to advise all to set for the first season's crop only.

\$1.50 per hundred; \$12.00 per thousand.



Senator Dunlap

The World's Best Strawberry

The above photograph in colors is from a cluster of berries taken from our rows which had been given only ordinary field culture, and rather late in the season, after the first large berries were picked; however, it shows the general appearance, shape and prolificness of the variety.

I have no hesitancy in saying that if I were confined to one variety this would be my choice.

When properly grown it is of excellent quality, a strong grower and prolific bearer.

Without doubt there are more acres of this variety growing in the Central and Northern States than of any two other sorts.

It should be grown on strong soil, but the plants should not be allowed to mat too thickly, hence a large part of the runners should be removed as they form.

Given an open row where sun and air can reach the berries, this variety is sure to please, as it is a very heavy bearer of deep red fruit of handsome appearance and best quality. It is a long season variety, commencing with the second earlies and lasting well towards the end of the season.

I know that some growers condemn this sort as unreliable, and of poor quality, but I think the reason for this is that they have allowed the plants to make too heavy a matted row, consequently the sun cannot get in to properly ripen the fruit; and if wet weather comes the berries are soft and inferior.

When grown under best conditions it is hard to beat. In other years we have said that it might be called a perfect flowered Warfield, as it resembles that variety in appearance of fruit very much, and being a stronger pollenizer it makes a good mate to set with Warfield.

I will stake my reputation as a successful Strawberry grower and an honest man on this variety, for either home use or for a market sort. Try it, you will not regret it if you give it the treatment that I have suggested.

Twenty-five, 20c; hundred, 60c; thousand, \$3.00.

SAMPLE
From an Original Photo
Taken in 1906.



LATE TO VERY LATE VARIETIES

Sample

(Imp.)—The introducer says: "Large size and fine quality; quite firm; continues a long time in fruit. The berries are large to the last. For the market-man it is the best strawberry ever grown. I have nothing in my grounds that will begin to fruit like it. It will yield as many berries as the Haverland, and will average as large as the Bubach. Colors all over at once. A berry that will do that is the best one yet found. There is not a weak spot in it. Foliage perfect, fruit perfect."

I feel perfectly safe in recommending this sort to my friends for either home use or market, where a late berry is desired. While we have a fair stock of plants I would advise ordering early as we always run short of Sample long before the close of the season.

Twenty-five, 20c; hundred, 60c; thousand, \$4.00.

The Profitable Aroma

(Per.)—While fruit is quite similar to Gandy, the growth is very different, making fewer plants and stronger ones. The berries are large to very large, and hold up well to end of season. "It has been claimed to produce twice as much fruit as Gandy, but I would hardly think it probable, where both are grown under the same conditions. The quality of fruit is good, the color of the berry is against it where dark colored fruit is the standard of excellence, as it is more like Gandy, inclined to be light. I can personally recommend this sort to any one wanting a late market berry."

If large, bright colored berries, late in season, are an object to you, then try Aroma, and you will be pleased.

We fruited a small block of this variety the past season, which had been mulched with horse manure and most of the manure left on the ground. I think the show of fruit was equal to any that I ever saw; the berries were very large and simply lay in piles. When other varieties were selling for \$1.15 to \$1.25 on the Chicago market we received \$1.50 for the Aroma. While I think Sample or Gandy are of better quality I believe Aroma is the most profitable sort for late market.

Twenty-five, 20c; hundred, 60c; thousand, \$4.00.

Gandy

(Per.)—Has always been popular as a late market variety; does not do well on light sandy soil, and is apt to be disappointing when planted in such location. I have no hesitation in recommending this to all as one of the best late sorts for home use or market. The only fault that I have ever heard found with it was its "shy bearing" when planted on uncongenial soil.

Gandy should be grown on well-manured, clay loam soil for best results, and given such soil it will be found a very profitable late market berry.

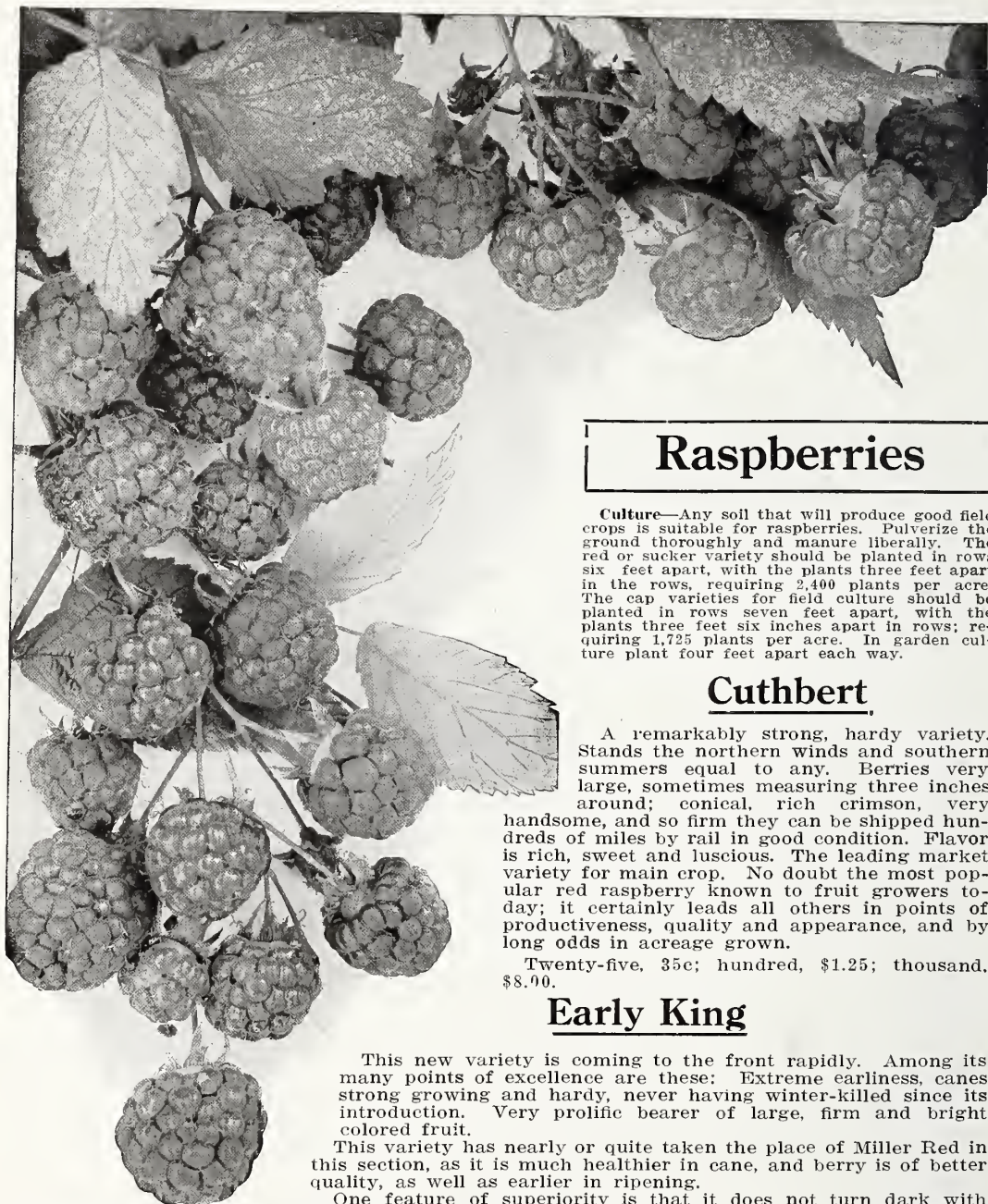
We have only a limited stock of this variety for coming season. 60c per 100; \$3.50 per 1,000.

Stevens' Late

(Per.)—The originator describes it as follows:

"Very large, fine flavored, bright color, good shipper, a fine bed maker, a heavy yielder, fine foliage. It ripens later than Gandy Prize, and lasts until the Fourth of July any season. It has never shown any sign of rust. The cap, which is double, has always kept green until the last of the season."

20c per 25; 60c per hundred; \$3.50 per thousand.



Raspberries

Culture—Any soil that will produce good field crops is suitable for raspberries. Pulverize the ground thoroughly and manure liberally. The red or sucker variety should be planted in rows six feet apart, with the plants three feet apart in the rows, requiring 2,400 plants per acre. The cap varieties for field culture should be planted in rows seven feet apart, with the plants three feet six inches apart in rows; requiring 1,725 plants per acre. In garden culture plant four feet apart each way.

Cuthbert

A remarkably strong, hardy variety. Stands the northern winds and southern summers equal to any. Berries very large, sometimes measuring three inches around; conical, rich crimson, very handsome, and so firm they can be shipped hundreds of miles by rail in good condition. Flavor is rich, sweet and luscious. The leading market variety for main crop. No doubt the most popular red raspberry known to fruit growers today; it certainly leads all others in points of productiveness, quality and appearance, and by long odds in acreage grown.

Twenty-five, 35c; hundred, \$1.25; thousand, \$8.00.

Early King

This new variety is coming to the front rapidly. Among its many points of excellence are these: Extreme earliness, canes strong growing and hardy, never having winter-killed since its introduction. Very prolific bearer of large, firm and bright colored fruit.

This variety has nearly or quite taken the place of Miller Red in this section, as it is much healthier in cane, and berry is of better quality, as well as earlier in ripening.

One feature of superiority is that it does not turn dark with age as does the Cuthbert, but keeps its bright red color, although it will drop from the bushes if allowed to get over-ripe; this requires frequent picking. I would recommend this as the best early Red Raspberry grown.

Twenty-five, 35c; hundred, \$1.25; thousand, \$8.00.

Ranere, or St. Regis Everbearing

This variety has been grown in New Jersey for several years by a colony of Italian gardeners and by them called **Ranere**. A few years ago J. T. Lovett put it on the market, calling it "St. Regis." It is a sure-enough "everbearer," for after the fruiting canes finish their crop in summer it begins to bear on the tips of the new canes and with favorable weather it will ripen quite a "Fall crop," continuing till killed by frosts. These same new canes living through the winter and bearing heavy crop during the next summer. In its original location it is considered profitable as a market sort, being one of the earliest to ripen. It is also very hardy, having withstood the coldest winters without injury.

We have a nice lot of plants of this variety of our own growing that we can warrant genuine and we would advise all to test it, as we think it has merit, judging from the demand for plants, which increases each season.

Twenty-five, 50c; hundred, \$1.50; thousand, \$12.00.

BLACK OR CAP VARIETIES

Cumberland

This has been named the "**Business Blackcap**" by the introducers, and has been loudly praised by all who have grown it. It is a very large berry of fine flavor, rich and sweet, and of jet black color with slight bloom. The cane is of extreme hardiness, very strong growing and free from **anthracnose**.

It is a mid-season variety following the early sorts, but ripening ahead of Gregg.

Without doubt this is the most popular Black Raspberry grown today, there being perhaps twice the acreage set to Cumberland in this locality of any other sort.

Twenty-five, 40c; hundred, \$1.25; thousand, \$9.00.

The "Scarff"

This new variety was first offered to the public as an "Improved Gregg," by W. N. Scarff, of Ohio, but to avoid confusing with the old variety of that name, it was thought best to change the name to "Scarff," after the Introducer, whose description I will give: "In size it compares with the Cumberland, perhaps a trifle larger. In productiveness it is far ahead of any Black-cap we grow. It is absolutely hardy; canes free from disease and strong, upright growers. The canes are cleaner by far than any raspberry that we have ever seen, and we think it will stand heat and drouth better, making an abundance of good strong canes."

We planted this for the first last spring, and have not seen it in fruit, but in plant growth it seems very nearly to come up to the Introducer's claims. We have only a limited number of plants to offer.

Twenty-five, 60c; hundred, \$2.00.

Gregg

My experience is that Gregg is quite hardy on well drained soil, but does not love wet feet and winter-kills badly on wet ground. The berries are covered with a whitish blue bloom, which in its first dissemination was mistaken for mould or mildew, and hindered the sale of the fruit on the market; but since becoming better known, this sort is very popular in all sections, and I do not hesitate to class it as the **best late market sort**.

Twenty-five, 40c; hundred, \$1.25; thousand, \$10.00.

Plum Farmer

"This grand blackcap raspberry was found by us in a lot of blackcap plants received from Ohio some years ago. We have fruited it and sold plants from it for nearly fifteen years, and in all this time, while we have tried numerous varieties, we never have seen anything that could near approach it in value. The plants are fine growers, being more free from diseases of black-caps than other varieties; are clean silvery bluish in appearance when ripened in the fall, and when loaded in fruit are a sight to behold. It ripens very early and most of the fruit is produced in one week. It will outyield any blackcap we have ever seen. The fruit is very large, thick meated and very firm, making a good berry to evaporate or ship to distant markets."—L. J. Farmer.

We have fruited this and find that it is easily the best blackcap we have growing today. Cane is healthy and strong growing, has many laterals, thus giving lots of bearing wood, insuring its heavy bearing, while the berry is very large and of fine quality.

Twenty-five, 40c; hundred, \$1.25; thousand, \$10.00.



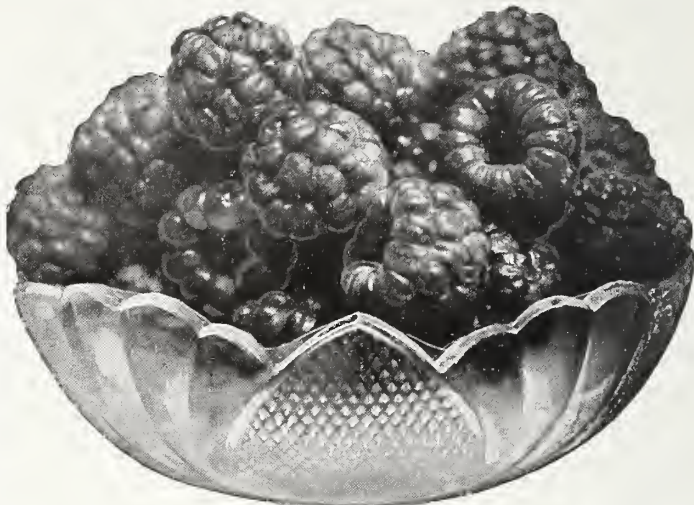
Plum Farmer.

PURPLE CAPS

Royal Purple

Originated in Indiana with a grower who says: "It surpasses anything I have ever seen in the Raspberry line. The original bush stands in a stiff blue-grass sod and has borne thirteen successive crops, and some of the time in winter the mercury has gone 35 degrees below zero. The bush is of healthy growth, and the fruit is of large size." The canes are model growers, vigorous and healthy, and the color of the bark is deep, rich red, being smooth except near the roots. The berries are purple in color, good shippers and good keepers; they do not crumble when picked. The bulk of the crop comes about two weeks later than Columbian.

Twenty-five, 50 cts.; hundred, \$1.50; thousand, \$12.00.



Royal Purple.

Columbian

The Columbian is a variety of the Shaffer type, of remarkable vigor and productiveness. It is hardy and propagates from tips. Fruit very large, often an inch in diameter, shape somewhat conical, color dark red, bordering on purple; adhere firmly to the stem and will dry on bush if not picked; seeds small and deeply imbedded in a rich, juicy pulp with a distinct flavor of its own, making it a most delicious table berry. In my estimation this is the most valuable purple cap yet produced, as it is more hardy in cane and certainly more prolific, and fruit of larger size than any other sort I am acquainted with.

Twenty-five, 50c; hundred, \$1.50; thousand, \$12.00.

Testimonials

Mo., April 14, 1916.
My Dear Sir:—Received your order last Tuesday, and found everything in fine order. The berries are growing rapidly already. Will send you a picture of my patch about July. Thanks for the Everbearing berries, also your prompt service. Hoping to remain your friend,
ROBERT O. PERSON.

Iowa, May 15, 1916.
Dear Sir:—Received the 50 extra plants you sent me. I must thank you for same. You sure do business in the right way. The last ones are coming fine. Without them my patch would have looked bad. You sure gave me a square deal. Thanks for same. I remain,
Yours very truly,
MRS. S. MARTIN.

Mo., April 14, 1916.
Gentlemen:—The order of strawberries and raspberries came yesterday evening and was received in good condition. I thank you for your care in packing and shipping these goods. If you are always so careful to get your stock out in good condition I feel that you are worthy of commendations.
Yours very respectfully,
HARRY T. WEST.

Kan., Jan. 20, 1916.
Gentlemen:—Please forward us at once latest Catalog and price list, as we have already taken orders for several thousand strawberry plants, supposing that we would work under the same contract as last year.

We have been selling your plants for several years, and find your plants to give the best satisfaction in this territory of any we have ever handled.
Yours very truly,

J. W. LEWIS & SON.

Ohio, Nov. 6, 1916.
Dear Sir:—Last spring I purchased from you some Progressive strawberries. I was more than pleased with them and at this writing I have ripe berries and also green ones.

I wish to plant a few spring bearing berries and wish to ask if the latter can be planted alongside of the Progressive without mixing?

I was told that they would mix but I can't understand this if I propagate from runners.

Please advise me about this and also name your best family spring berry.
Yours truly,
J. F. DETWEILER.

Ill., April 26, 1916.
Dear Sir:—I am well pleased with my plants which I received the 14th, as they are such nice plants and they came in nice shape.
Thanking you I am,
Very respectfully,
WM. MULETT.

Ohio, April 20, 1916.
Tips arrived in fine shape, also the Garden Magazine. Many thanks. Am very well pleased with everything.
Very truly yours,
MRS. DELLA JOHNSMAN.

Conn., April 22, 1916.
Dear Sir:—The plants you shipped on April 15th arrived here on the 20th and I found them in first class condition. They showed careful and painstaking workmanship. Thanks for the Helen Davis plants.
Yours very sincerely,
JOHN B. COX.

Wash., April 26, 1916.
Dear Sir:—I received the plants April 14th. They were in fine shape. I planted them the same day and they are all growing. Am very much pleased with them so far.
Respectfully yours,
SID. RASMUSSEN.

Blackberries

Blackberries should be planted in rows six or seven feet apart and three to five feet in the rows. Keep the ground light and rich. Pinch the canes back when they have reached the height of from two to three feet.

Our Blackberry plants are strong "Sucker" plants with good cross roots and are first class.

The Productive Ward

Undoubtedly a seedling of the Kittatinny, which it resembles, having all of its good qualities and none of its defects. Healthy, strong grower with sturdy canes producing fine large fruit, black throughout, without core and of excellent quality. Have never suffered from winter injury in New Jersey. An exceedingly prolific sort, the bushes being covered with its fine fruit, producing as many bushels per acre as the Wilson in its prime.

This is a new variety that we listed four years ago for the first time, although I have fruited it several seasons. I find that it proves quite hardy in bud and cane, withstanding our winters without protection.

To those who remember the old Kittatinny, this will prove an acceptable variety, as it is much like that sort in manner of growth and in quality of berry, while it is not troubled with "orange-rust," which has practically destroyed the Kittatinny.

I shall have to qualify the above statement, which was our last season's description, a little, for we noticed some canes in our older block of this variety, showing unmistakable signs of rust the past year.

The only "cure" we know for this disease is to pull out and burn all affected hills. If one watches closely and is careful in this, I think this variety can be kept free for several years, or for as long as any block should be kept in fruit without renewing.

Twenty-five, 50c; hundred, \$1.50; thousand, \$12.50.



Eldorado

In other years I have headed our list with Eldorado, but this time I am going to give it second place, as I think Ward is fully as good a berry in every way, and much more productive.

However, I do not mean to infer that Eldorado is not a first-class variety. For years it has been a standard of excellence in all points, with us; superior quality, large size, hardness of bud and cane, sells well in market as it is jet black and holds its color well, berry large and juicy, without core, entire freedom from **Orange Rust**, and a prolific bearer.

What more can we say? Try it yourselves, giving it a good strong soil, full of humus; prune and cultivate properly and my word for it, you will be pleased.

Twenty-five, 50c; hundred, \$1.75; thousand, \$13.50.

Dewberries

Lucretia

This is counted as the **standard** of all Dewberries, is earlier than the earliest blackberry and is as large as the largest of them. The canes are of great hardness and exceedingly prolific, thriving everywhere, of slender, trailing habit and entirely free from disease and insect attacks. The fruit is large and handsome, jet black, rich and melting; ships well and keeps well.

Twenty-five, 40c; hundred, \$1.25; thousand, \$10.00.

"Collins" Strawberry

This new berry originated at Bridgman is a "winner." Try a few for either home use or market. My word for it you will be pleased. We have found it one of our best croppers. The price this year is very low for a new variety.



Grape Vines

The grape is one of the easiest fruits to grow and should be in all collections. When once well established, vines will continue in bearing a long time with very little care, other than the cutting back of the extra growth, which should be done in winter or very early spring (before sap starts to circulate). This pruning is essential to the healthy growth of the vine and its fruitfulness. The grape is fast becoming a leading fruit in our section of Michigan, and there is no reason why it should not be grown in many other sections of our country. With such hardy varieties as Concord, Worden and Niagara, no one need be without at least a few for the home use, as the vines can be taken off the trellis for the winter, and if covered lightly with some kind of mulch will stand the extremes of our northern climates.

Niagara (White)—Vine hardy, and unusually strong grower; bunches very large and compact, sometimes shouldered; berries as large or larger than Concord; mostly round, light greenish white; semi-transparent, slightly amber in sun, skin thick but tough, and does not crack; quality good; very little pulp, melting and sweet to the center.

First-class one-year plants: Dozen, 75c; hundred, \$4.00.

Concord—A large, purplish black grape, ripening about the middle of September; vines remarkably vigorous and free from disease; the standard for productiveness and hardiness all over the country. One-year, No. 1: Dozen, 60c; hundred, \$3.00.

Worden—A splendid, large grape of the Concord type, but earlier, larger in bunch and berry, and of a decidedly better quality; vine hardier than that old standby and every way as healthy. A very popular sort, planted largely for the market; next to Concord in number used.

Fine one-year plants: Dozen, 75c; hundred, \$4.00.

Moore's Early—A black grape. Bunch large, berry round, quality better than the Concord; vine exceedingly hardy. Its earliness makes it desirable for an early crop, and more particularly adapts it for New England and the northern portion of the United States, maturing as it does ten days before the Hartford and twenty days before the Concord.

No. 1, one-year: Dozen, 75c; hundred, \$4.00.

Brighton (Red)—Perhaps the best red grape in cultivation. Bunch large and compact, a strong grower and very productive; quality good.

Fine one-year plants: Dozen, 75c; hundred, \$4.00.

Gooseberries

The same soil and conditions best adapted to currants will be appropriate for gooseberry culture. The American varieties of gooseberries are among our hardiest plants. All of the standard sorts of the present day are cultivated forms of a native species natural to the upper Mississippi Valley, and in this region the cultivated sorts seem to reach their highest development. Clean culture should be given until the plants are well established, usually about the third year; after this they may be permanently mulched. As the best fruit is borne by the two and three-year-old wood, a certain amount of pruning will be necessary to encourage a strong growth of canes and in the removal of the older wood after bearing.

Downing—This is without doubt the best gooseberry for general cultivation that is offered to-day. It is an American or Native seedling, not an English sort. The latter are very hard to grow

successfully in this climate on account of weak foliage which is very susceptible to mildew. When this disease attacks the gooseberry it causes the foliage to drop before the berries are fully grown and materially injures the crop. Downing is a yellowish-green sort, and of good size, being a strong growing bush and a very prolific bearer. Plants of all varieties of gooseberries are in light supply and in very good demand, and the price is high.

Dozen, \$1.25; hundred, \$8.00.

Houghton—An enormously productive and always reliable old sort; of vigorous, yet rather slender, spreading growth; not subject to mildew. Fruits of medium size, smooth, pale red; tender and good.

Dozen, \$1.25; hundred, \$7.00.



Downing.



Currants

A cool, moist location is best for this fruit, and for this reason succeeds admirably when planted by a stone wall or fence; being benefited by partial shade. Plant in rows four feet apart, and the plants three feet apart in the rows. Keep the ground mellow and free from weeds and grass, using fertilizer copiously. Mulching is necessary for the best results.

Perfection—This new currant was originated by C. G. Hooker, of New York State, by crossing the Fay's Prolific with the White Grape Currant. It has the large size of the Fay, with the extra good quality and great productiveness of the White Grape. The color is beautiful bright red, and is less acid and of better quality than any other large currant in cultivation. Perfectly healthy, and a vigorous grower, and in fact the best currant for home use or market purposes under cultivation today. It has received a great many testimonials from the highest sources in this country. I think all who want a fancy fruit of this sort will do well to try a few. Two-year plants. Twelve, \$1.25; hundred, \$9.00.

Wilder—A remarkable variety, for which we predict great popularity, both for table and market. One of the strongest growers and most productive. Bunch and berries very large, bright attractive red color, even when dead ripe; hangs on bushes in fine condition for handling as late as any known variety. Compared with the celebrated Fays is equal in size, with longer bunch, better in quality, with much less acidity; ripens at same time, continues on bush much longer; fully as prolific, in some trials largely outyielding it. Recommended by our Experiment Station as the best red currant. Strong plants. Dozen, 75c; hundred, \$4.50.

London Market—Of English origin. As compared with Victoria, it is larger, more productive, much stronger, less infested with borers, and retains its foliage until frost comes. It has produced twice the amount of fruit the Victoria did under the same conditions; very strong and upright grower. Strong plants. Dozen, 75c; hundred, \$4.50.

White Grape—Very large, yellowish white, sweet or very mild acid; excellent quality and valuable for the table. The finest of the white sorts. Dozen, 75c; hundred, \$4.50.

Lee's Prolific (Black)—This is the leading variety of the black currant. Very heavy bearer of large bunches of fruit. Extra quality. Valuable for home use. Dozen, 75c; hundred, \$4.50.

Asparagus Roots

When planting asparagus roots, set four to six inches deep, and about 12 inches apart in the row, covering with only three inches of soil at first, and filling in the trenches as the plants grow.

The asparagus bed is apt to be neglected in the early fall. Before the 1st of September the tops should be cut, and the bed or field cleared of weeds. It is highly important that all the seeds should be taken off, as the greatest enemy asparagus has in the way of weeds is asparagus, and it is almost impossible to get clear of superfluous plants, when once established. When this work is finished, cover the bed to a depth of three inches with coarse manure, which will not only enrich the soil, but will keep out the frost, which is highly essential.

The first work in the spring should be to remove all the covering except the fine manure, which should be carefully forked in, so that the crowns will not be injured by the tines of the fork. Forking the beds should not be neglected, as the early admission of the sun and rain into the ground induces the plants to throw up shoots of superior size. Another step in the right direction is to keep the ground entirely free from weeds the entire season, as these take from the plants the strength required for their own growth and the asparagus needs it all.

Palmetto—A valuable new variety and is being planted very largely. It is nearly twice the size of Conover, fully as early, and as productive. The flavor is excellent.

Hundred, 75c; thousand, \$4.00.

Giant Argentueil—This variety is largely grown in France, but has become adapted to our soil and climate. Is noted for its earliness, productiveness and immense size of stalks. Remarkably healthy. Hundred, 75c; thousand, \$4.00.

Rhubarb or Pie Plant

This deserves to be ranked among the best early products of the garden. It affords the earliest material for fine pies and fresh table sauce, continues long in use, and is valuable for canning. Make the ground rich and deep, as recommended for asparagus. Plant four feet each way.

Myatt's Limaens—Those who have never grown this variety, which is of superior quality, will hardly recognize the old "Pie Plant." It is an early, tender variety, without being in the least tough or stringy, with a mild, sub-acid flavor.

Good strong roots, 5 cents each; dozen, 50c; hundred, \$4.00.

Price List for 1917

Strawberry Plants

If by mail, see Parcel Post rates on page 23. At thousand rate by Express or Freight only. Fifty of one variety at hundred, or 250 of one variety at thousand rates.

Variety	25	100	1000
Aroma	\$0.20	\$0.60	\$4.00
Bubaeh	.20	.60	4.50
Brandywine	.20	.60	3.50
Bederwood	.20	.60	2.50
Billy Sunday	.20	.60	4.00
Big Joe Johnson	.20	.60	4.00
Collins	.25	.75	5.00
Chesapeake	.25	.75	5.00
Charles the First	.20	.60	4.00
Glen Mary	.20	.60	4.00
Gandy	.20	.60	3.50
Gibson	.20	.60	3.50
Haverland	.20	.60	3.50
Helen Davis	.20	.60	3.50
Lovett	.20	.60	3.00
Luther	.20	.60	3.00
Rewastico	.20	.60	3.50
Sample	.20	.60	4.00
Senator Dunlap	.20	.60	3.00
Stevens' Late	.20	.60	3.50
Wm. Belt	.20	.60	3.50
Warfield	.20	.60	3.00

Fall Bearing Strawberries

Progressive	.50	1.50	12.00
Superb	.50	1.50	10.00

Raspberry Plants

	25	100	1,000
Cuthbert	\$0.35	\$1.25	\$8.00
Early King	.35	1.25	8.00
St. Regis, Everbearing	.50	1.50	12.00
Columbian	.50	1.50	12.00
Royal Purple	.50	1.50	12.00
Cumberland	.40	1.25	9.00
Gregg	.40	1.25	10.00
Plum Farmer	.40	1.25	10.00
Scarff	.60	2.00	15.00

Blackberry Plants

	25	100	1,000
Eldorado	\$0.50	\$1.75	\$13.50
Ward	.40	1.50	12.50
Lucretia (Dew)	.40	1.25	10.00

Gooseberries

	12	100
Downing	\$1.25	\$8.00
Houghton	1.25	7.00

Grape Plants

	12	100
Concord	\$0.60	\$3.00
Worden	.75	4.00
Moore's Early	.75	4.00
Brighton	.75	4.00
Niagara	.75	4.00

Currants

	12	100
Perfection	\$1.25	\$9.00
Wilder	.75	4.50
London Market	.75	4.50
White Grape	.75	4.50
Lee's Prolific	.75	4.50

Premium Offers

With a \$2.00 order for other plants at catalogue rates I will include **Six Perennial Phlox Plants, or Fifteen** with a \$5.00 order.

With an order amounting to \$2.50 I will include **10 Fall-bearing Strawberry plants** or with a \$5.00 order I will include 25 plants; with a \$10.00 order you may add 50 of either **Superb** or **Progressive**.

With an order amounting to \$2.00 I will include **25 Collins Strawberry plants**; with a \$5.00 order, 50 **Collins**; or 200 with a \$10.00 order.

With an order amounting to \$15.00 or more I will include one year's subscription to **The Garden Magazine**. As its name indicates it is devoted to the interests of the garden and farm. Each issue has excellent articles from able writers, and is well worth the subscription price of \$2.00.

On all orders amounting to \$5.00 or more you may add 10 per cent in stock from the list.

Please Notice. These Premium Offers must be mentioned when the order is sent; also that in either of these offers the amount must be figured at the catalog price and not where a special price has been quoted; also **only one premium** with each order.

C. E. WHITTEN'S NURSERIES, BRIDGMAN, MICHIGAN

Instructions to Purchaser

Read over very carefully before making out your order. Use the order sheet inclosed and sign your name very plainly giving Post Office, County and State.

MY LOCATION—I am located in Southwestern Michigan, about fifteen miles south of St. Joseph, near Lake Michigan, in what is known as the "Great Fruit Belt."

RAILROAD CONNECTIONS are good. Our line of road, the Pere Marquette, runs mail and express trains direct to Chicago; time about three hours. Within fifty miles this line connects with the great trunk lines, east, west, north and south.

TELEPHONE—Long distance telephone in our office.

PARCEL POST—We are now able to ship plants by Parcel Post, and within the nearer zones it is the cheaper method.

Within the First and Second zones, which cover 150 miles, the limit of weight is fifty pounds, while in all other zones the limit is twenty pounds.

With the varying zone rates and the uncertainty of weights it is practically impossible to tell in advance what the cost of transportation of each shipment will be, therefore we find it best to send plants C. O. D. for Parcel Post charges.

This costs an extra 10 cents, but it is also an insurance, as these C. O. D. packages have to be receipted for, and are reasonably sure of reaching their destination, while many packages sent in open mail do not.

Where our customers live on R. F. D. routes with Parcel Post delivered at their doors, which is so much more convenient than having to go perhaps several miles to the express office, that to accommodate such we are willing to send in the manner described above.

However, I frankly admit that considering the perishable nature of live plants, I believe that express shipment is the safest and cheapest in the end, although it may cost a little more. I much prefer express shipments, and must decline any large orders to be shipped by mail.

BY EXPRESS—This is the safest way to ship live plants, as it makes fast time with the least liability of delay. Sometimes when transferred to another company the charges seem rather high, but when the nature of the service is considered it is really the cheapest in the end.

We have only the Adams Express Company; however, we find little difficulty in reaching most of our customers by this company, and its connections. Under new ruling of interstate commerce express companies bill to destination even if there are two or more companies, making a low charge on small packages.

FREIGHT—Early in the season I can ship by freight with comparative safety, but there is a possibility of delay and consequent loss. Parties ordering stock shipped by freight will have to take the risk, as I cannot be responsible for loss, if any, on stock shipped in this manner.

LOSS OR DAMAGE—If packages are broken or damaged upon arrival, or have been an unreasonable time enroute, our patrons should refuse to accept and pay charges on the same, but should place claim for their value at once with the agent at their end of the line.

SAFE ARRIVAL—I do not undertake to guarantee safe arrival by any of these modes of transportation, as I have no control of stock after it leaves my hands; however, it is to my interest, as well as the interest of my customers, to have stock reach the purchaser in good condition, and I shall always endeavor to so pack and forward goods that they may prove satisfactory.

MY PACKING is done in the best possible manner and under my personal care. I use light crates or baskets with plenty of moss for packing strawberry plants, and barrels and boxes for other sorts, making no charge for the work or package. My long experience in

this line gives me a decided advantage in the matter of safe packing. I also have experienced help who have worked with me several years. Of course, we do not claim infallibility, and are always ready to make reparation where at fault.

SHIPPING SEASON begins about April 1st, or possibly last week in March, and continues until about 1st to 10th of May, according as the season is early or late.

TERMS—One-fourth cash with order, balance before stock is shipped. Or I will ship C. O. D. if one-half of the amount accompanies the order and purchaser will agree to pay the return charges on the money.

REMITTANCES may be made either by New York or Chicago draft, postoffice or express order, or where none of these may be had, by registered letter.

RATES—Fifty plants of one variety at hundred rates; or three hundred plants of one variety at thousand rates. When an order amounts to \$10.00 or over, it may be counted at the thousand rate, regardless of number taken. No order booked for less than \$1.00.

MY PRICES as a general thing are very low, but on large lists we are sometimes able to give better rates and invite all wanting large lots to write for estimates.

By large lots, I mean a quantity; ten to twenty thousand and up.

ORDER BLANKS—Use the order blank enclosed when ordering, being careful to write your name plainly, giving Postoffice, County and State, and do this every time you write. Also keep a copy of your order yourself. Be particular to say how goods are to be sent, whether by mail, express or freight. All orders are acknowledged immediately upon receipt. If you do not receive an acknowledgment in a reasonable time, write again.

WHEN TO ORDER—Early, by all means. The rule generally is "First come, first served," also the early orders find full stock, while later some varieties are liable to be exhausted.

Our customers will please remember that the time for filling orders is short, and it would facilitate our work greatly if orders were sent before the rush.

PREMIUM OFFER—On all orders at catalog rates received during January and February with cash in full, I will allow a cash discount of 5 per cent, or for every dollar sent during these months you may order additional stock to the amount of ten cents.

SUBSTITUTION—In ordering please state whether I shall substitute some other variety in case the kind ordered should be exhausted. If not forbidden I claim the right to substitute something of equal value, but always label true to name. I always aim to substitute sort similar in quality and season and always something listed at equal or higher rate.

GUARANTEE AND CONDITION OF SALE—While I take great pains to have stock true to name and hold myself ready upon proper proof to refund money or replace any that proves untrue, it is mutually agreed that I shall not be liable for a greater sum than the amounts paid for such stock.

Every order received for articles named in this catalog will be received and executed on the above conditions only, and with the distinct understanding and agreement on the part of the purchaser that I shall in no case be liable for a greater amount than the sum originally paid to me for the stock in question.

REFERENCES—I refer to the Adams Express Agent or Postmaster at Bridgman; Union Banking Company, St. Joseph; or Bradstreet's Commercial Reports, as to my standing and reliability. Parties writing any one of the above, please enclose stamp for reply.

In making out your order please use enclosed order sheet, writing your name very plainly, and giving Postoffice, County and State.



Fall-Bearing Strawberries

Fall-bearing Strawberries have become so well known at this time that most people recognize them as a distinct species; however, we oftentimes hear some one say, "Oh, yes, my Dunlap or my Bubach, had a fall crop this season." Of course this sometimes happens, but it is quite a different thing from the regular fall-bearing varieties.

We have mentioned in earlier catalogs how Samuel Cooper of New York found the first fall-bearing strawberry plant away back in 1898. This he named Pan American, in honor of the Buffalo Exposition. From this variety and its seedlings have sprung all the fall-bearing sorts in America today.

Fall- or Ever-bearing. There seems to be some controversy as to which term is proper, and I presume that "Ever-bearing" is most appropriate, as these varieties generally show a tendency to continue in bearing the season through, the severe weather of winter usually catching them well loaded with green berries and blossoms. However, I think that I shall continue to use the term Fall-bearing, as that appeals to me as being the paying crop, rather than the June or Summer crop.

The fall-bearers require a soil of good fertility, if not naturally rich, then add fertilizer; we find nothing better for this than well-rotted stable manure worked into the soil during the fall previous to setting in the spring. Then, too, cultivation must be continued until the close of the growing season if you would have best success. This constant cultivation will make dirty berries in rainy season, but is necessary if you want the best growth of fruit and plants.

We find that **Progressive** is the best shipper, holding up for long distance shipping, equal to almost any of the June sorts, and in flavor and quality is equal to or surpasses any of the fall-bearers that we have tested.

I do not hesitate to urge all to try these berries, for I know you will be pleased. Some of our friends seem to be afraid that they will not succeed with them, but any one that can grow the June sorts successfully can grow these. The only difference in culture is that you must keep the bloom picked off until July 15th or August 1st for best results.

Superb (Per.) Some call this the best of all the fall bearers, but I give it second so many more berries the first season.

However, **Superb** is a good berry and will bear a heavy crop of fine berries in June of the second year and if given right treatment, by which I mean **clean culture** and **extra fertilization**, it will begin ripening another crop in August and continue until covered with snow, or destroyed by **hard freezing**, the first frosts do not injure it much, as the fruit is mostly underneath the foliage.

Superb is the larger berry, but does not stand up for long distance shipping so well as **Progressive**, especially in very hot weather. However, as a home berry or for near market it is fine, and where space is limited as it usually is in town or city homes, this is an ideal variety to grow, giving, as it does, nice ripe berries from June to Thanksgiving.

We have a reproduction of **Superb** in color on the front cover of this catalogue, but it is much reduced in size, about one-half.